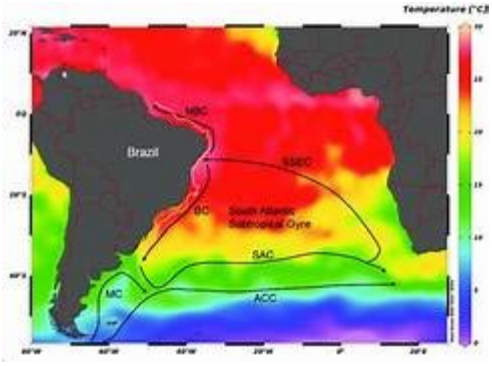
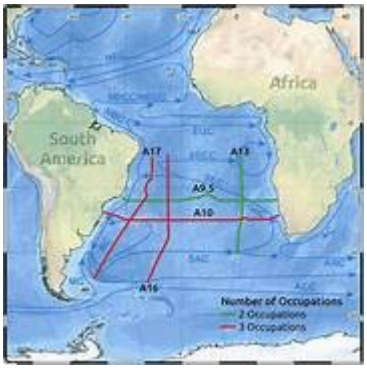
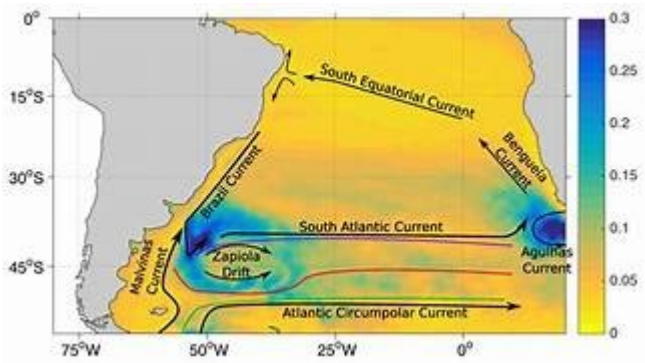
# Ryan Padraig Kelly South Atlantic Ocean

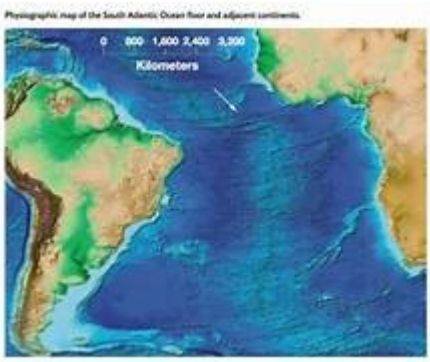


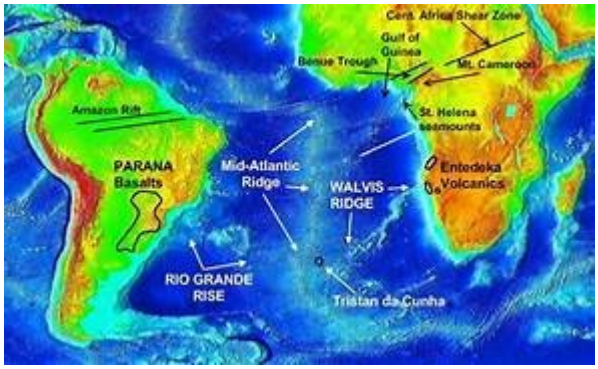

Africa
South America
A17
A13
A9.5
A10
A16
Number of Occupations
2 Occupations
3 Occupations

alamy


0°
15°S
30°S
45°S
75°W
50°W
25°W
0°
South Equatorial Current
Benguela Current
Brazil Current
South Atlantic Current
Agulhas Current
Zapiola Drift
Malvinas Current
Atlantic Circumpolar Current
0.3
0.25
0.2
0.15
0.1
0.05
0

ATLANTIC OCEAN
Gulf Stream

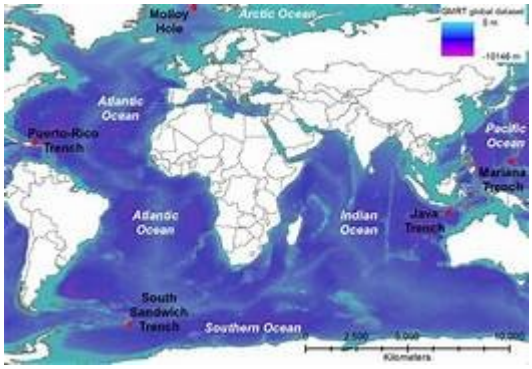

Physiographic map of the South Atlantic Ocean floor and adjacent continents.
0 800 1,600 2,400 3,200
Kilometers


Cent. Africa Shear Zone
Gulf of Guinea
Benue Trough
Mt. Cameroon
Amazon Rift
St. Helena seamounts
PARANA Basalts
Mid-Atlantic Ridge
WALVIS RIDGE
Tristan da Cunha
RIO GRANDE RISE

SOUTH ATLANTIC OCEAN

North America
Europe
Africa
South America
ATLANTIC OCEAN

NORTH AMERICA
ATLANTIC OCEAN
EUROPE
AFRICA
SOUTH AMERICA
ATLANTIC OCEAN

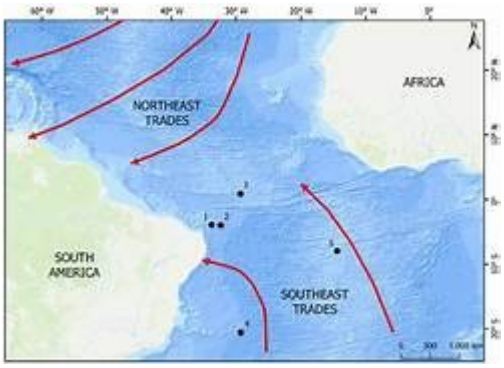

Molloy Hole
Arctic Ocean
Atlantic Ocean
Puerto-Rico Trench
Pacific Ocean
Mariana Trench
Atlantic Ocean
Indian Ocean
Java Trench
South Sandwich Trench
Southern Ocean
kilometers

SOUTH ATLANTIC OCEAN
dreamstime.com

United Kingdom
Ascension Island
Argentina
Falkland Islands
South Georgia

NORTH AMERICA
ATLANTIC OCEAN
EUROPE
AFRICA
SOUTH AMERICA
ATLANTIC OCEAN

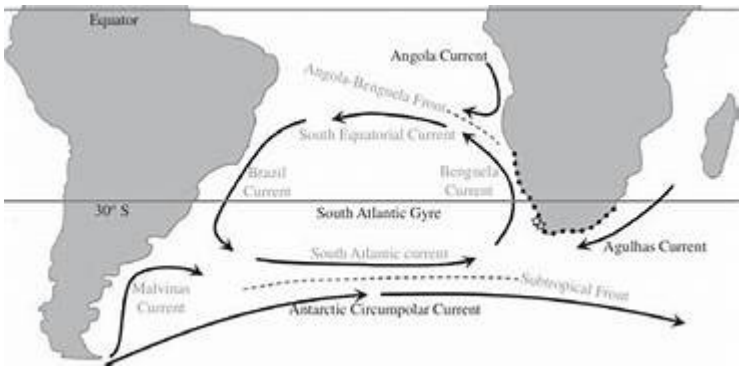
Clear IAS
Equatorial Counter Current
South Equatorial Current
Brazilian Current
Benguela Current
Warm Current
Cold Current
Falkland Current
South Atlantic Current
West Wind Drift


AFRICA
NORTHEAST TRADES
SOUTH AMERICA
SOUTHEAST TRADES

The Gulf Stream
Warm surface flow
Cool subsurface flow

Arctic Ocean
Atlantic Ocean
Pacific Ocean
Indian Ocean
Pacific Ocean
Southern Ocean

Ascension
St. Helena
Tristan da Cunha
Gough Island
Falkland Islands
South Georgia
Bouvet
Marion


Equator
Angola Current
Angola-Benguela Front
South Equatorial Current
Brazil Current
Benguela Current
30° S
South Atlantic Gyre
Agulhas Current
South Atlantic current
Subtropical Front
Malvinas Current
Antarctic Circumpolar Current

ATLANTIC
OCEAN
NORTH AMERICA
EUROPE
ASIA
AFRICA
SOUTH AMERICA
AUSTRALIA
ANTARCTICA

60° 40° 20° 0°
20°
0°
20°
40°
60°
Africa
South America
Equator
Ascension Island
St. Helena
South Atlantic Ocean
Tristan Da Cunha
Falkland Islands

ATLANTIC OCEAN
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North Equatorial Current
Counter Equatorial Current
South Equatorial Current
Falkland Current
Brazil Current
Benguela Current
Currents of the
Atlantic Ocean
West wind drift
West wind drift

North
Atlantic
Ocean
South
Atlantic
Ocean

SAINT HELENA,
ASCENSION AND
TRISTAN DA CUNHA

South Atlantic Ocean

Arctic Ocean
Atlantic
Ocean
Pacific
Ocean
Pacific
Ocean
Indian Ocean
Southern Ocean

SAINT HELENA,
ASCENSION AND
TRISTAN DA CUNHA

Labrador Sea
Norwegian Sea
North Atlantic
Suez Canal
Panama Canal
South Atlantic
Cape of Good Hope
Cape Horn

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SOUTH ATLANTIC OCEAN
dreamstime.com

Labrador Sea
Norwegian Sea
North Atlantic
Suez Canal
Panama Canal
South Atlantic
Cape of Good Hope
Cape Horn

SAINT HELENA, ASCENSION AND TRISTAN DA CUNHA
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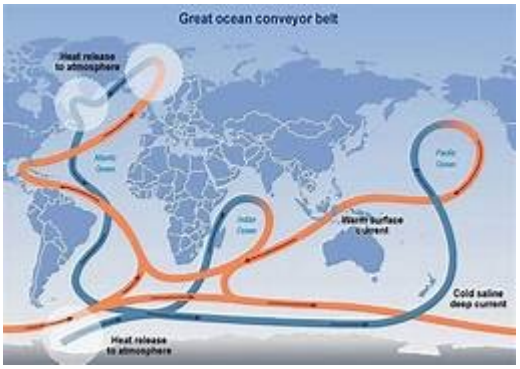
Arctic Ocean
Atlantic Ocean
Pacific Ocean
Pacific Ocean
Indian Ocean
Southern Ocean


Great ocean conveyor belt
Heat release to atmosphere
Warm surface current
Cold saline deep current
Heat release to atmosphere

ASCENSION
Georgetown
Green Mtn
Wideawake Airfield
AFRICA
SOUTH ATLANTIC OCEAN
Ascension
St. Helena
Tristan da Cunha
Gough I.
ST. HELENA
Jamestown
Longwood
Mount Actaeon
TRISTAN DA CUNHA
Edinburgh
Tristan I.
Inaccessible I.
Gough I.
Stoltenhoff I.
Nightingale I.
Middle Island
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alamy
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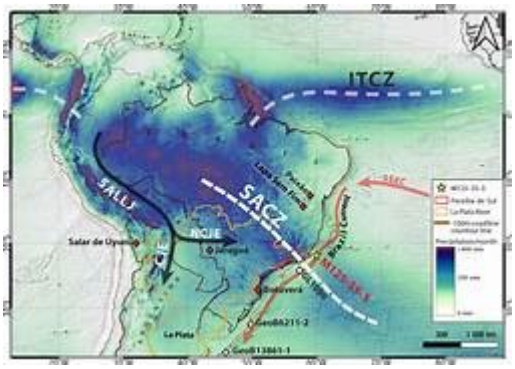
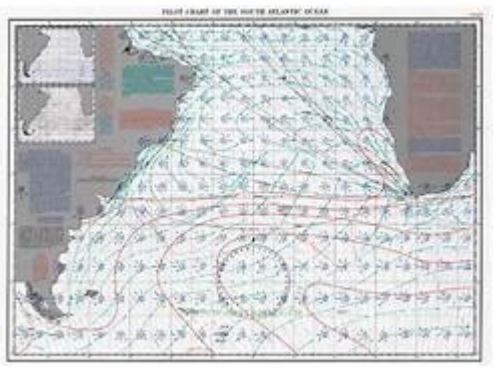

ITCZ
SACZ
SALLJ
NOJE
Salar de Uyuni
Jérégua
Le Plata
Geo86215-2
Geo813843-1

SAINT HELENA,
ASCENSION AND
TRISTAN DA CUNHA

ATLANTIC
OCEAN
NORTH AMERICA
EUROPE
ASIA
AFRICA
SOUTH AMERICA
AUSTRALIA
ANTARCTICA

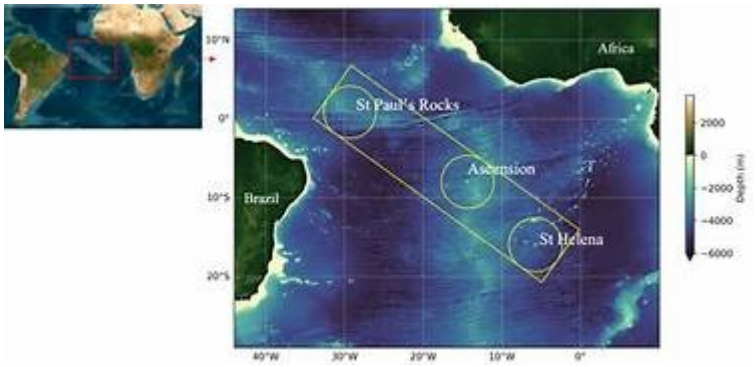


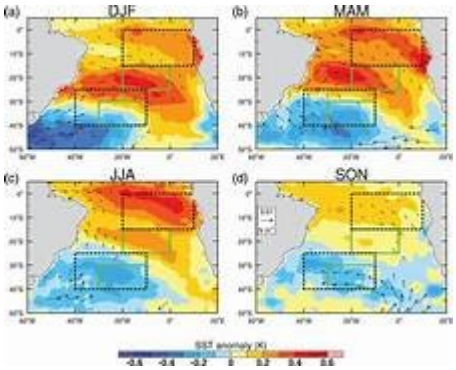
Arctic Ocean
Atlantic Ocean
Pacific Ocean
Pacific Ocean
Indian Ocean
Southern Ocean

North Atlantic Ocean

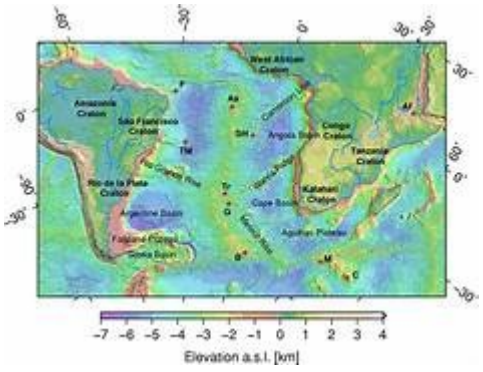
Currents of the
Atlantic Ocean
Labrador Current
East Greenland Current
Norwegian Current
Grand
Banks
North Atlantic Drift
Gulf Stream
Canaries Current
Sargasso Sea
Florida Current
Antilles Current
North Equatorial Current
Counter Equatorial Current

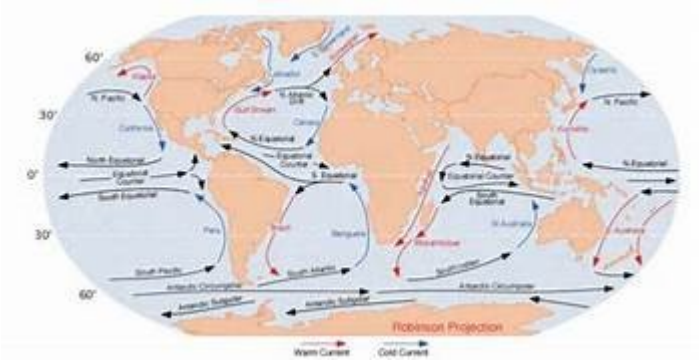
ST. HELENA, ASCENSION
AND TRISTAN DA CUNHA
(U.K.)
GABON
DEMOCRATIC
REPUBLIC
OF THE
CONGO
ASCENSION
ANGOLA
ST. HELENA
NAMIBIA
ATLANTIC
OCEAN
SOUTH
AFRICA
TRISTAN DA CUNHA

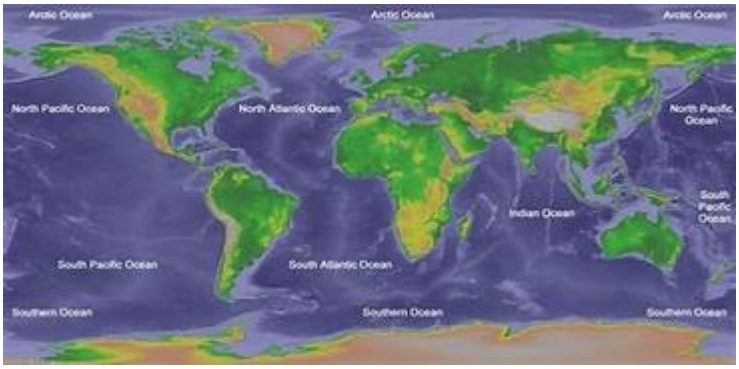

Africa
St Paul's Rocks
Ascension
St Helena
Brazil
10°N
0°
10°S
20°S
40°W
30°W
20°W
10°W
0°
2000
0
−2000
−4000
−6000
Depth (m)


(a) DJF
(b) MAM
(c) JJA
(d) SON
SST anomaly (K)

ARCTIC OCEAN
ASIA
EUROPE
NORTH AMERICA
NORTH ATLANTIC OCEAN
AFRICA
SOUTH AMERICA
SPEED OF CURRENTS


West African Craton
Amazonia Craton
São Francisco Craton
Congo Craton
Angola Basin
Tanzania Craton
Rio de la Plata Craton
Kalahari Craton
Cape Basin
Argentine Basin
Agulhas Plateau
Falkland Plateau
Etosha Basin
−7 −6 −5 −4 −3 −2 −1 0 1 2 3 4
Elevation a.s.l. [km]


60°
30°
0°
30°
60°
N. Pacific
N. Equatorial
Equatorial Counter
S. Equatorial
South Pacific
Antarctic Circumpolar
Antarctic Subpolar
Robinson Projection
Warm Current
Cold Current


Arctic Ocean
Arctic Ocean
Arctic Ocean
North Pacific Ocean
North Atlantic Ocean
North Pacific Ocean
Indian Ocean
South Pacific Ocean
South Pacific Ocean
South Atlantic Ocean
Southern Ocean
Southern Ocean
Southern Ocean